DISTRIBUTION: Europe, Transcaucasia, Caucasus, Asia minor, Afghanistan.

Specimens examined: Kaul RRL 19706 (15-x-1970) Majid Bagh, Srinagar.

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REGIONAL RESEARCH LABORATORY, SRINAGAR 190 005, KASHMIR, December 1, 1973. M. K. KAUL

38. SOME INTERESTING PLANTS FROM RAJASTHAN

A perusal of up-to-date literature on the vegetation of Rajasthan reveals that north-east, north-west, and western parts of the state have been intensively explored so far. South-eastern plateau of Rajasthan, which extends over Kotah, Bundi and Jhalawarh districts, has not been given due consideration; the notable contributions from this plateau are those of Jain & Kotwal (1960), Gupta (1965, 1966), Singh (1970) and Maheshwari & Singh (1972).

During botanical exploration of south-eastern plateau of Rajasthan, I noted that about 21 species, belonging to 19 genera and 9 families, have not been recorded earlier from any locality in Rajasthan. These species are enumerated below and each specific name is accompanied by its field number, frequency and abundance in the area, habitat with exact locality of occurrence and flowering and fruiting times. In the present paper 17 new records for "The Flora of Upper Gangetic Plain" have also been mentioned for the first time from this area and few species have been reported for the second time from Rajasthan. Earlier these species have been known from Mt. Abu, the highest peak of Arayallis.

The herbarium specimens are deposited in the Herbarium of National Botanic Gardens, Lucknow (LWG).

POLYGALACEAE

Polygala erioptera DC. var. vahliana (DC.) Chodat (90504). Rare; occurs in dry, rocky wastelands near Kotah. This variety differs

from nominate species in the characters of pubescence and hairiness. Fl. & Fr.: August-October.

ELATINACEAE

Bergia capensis Linn. (83733). Abundant on sandy and marshy banks of streams near Jhalawarh. Fl. & Fr.: August-November.

RHAMNACEAE

Ventilago denticulata Willd. (74408). Occasional; found on the hill-slopes in deciduous forests at Kotah-Dam. Fl. & Fr.: December-April.

CAESALPINIACEAE

Hardwickia binata Roxb. (91020). Rare; few plants found in the teak forests near Atru village. Fl. & Fr.: December-July.

UMBELLIFERAE

Ammi majus Linn. (74009). Rare; found in patches in wet and shady places in the evergreen forests of Sitabari (Kelwara). Fl. & Fr.: March-April.

SOLANACEAE

Physalis minima Linn. var. **indica** Cl. (90376). Rare; found in gardens and fields near Chhabra village. Fl. & Fr.: September-January.

PLANTAGINACEAE

Plantago pumila Willd. (90850). Rare; weed of cultivated fields near Baran. Fl. & Fr.: January-March.

EUPHORBIACEAE

Chrozophora parvifolia Klotz. ex Schfth. (83831, 90953). Common in drying ponds and ditches, particularly near Darah and Chhabra villages. Plants grow in association with *Gnaphalium pulvinatum* Del. Fl. & Fr.: April-July.

GRAMINEAE

Arthraxon hispidus (Thumb). Makino f. muriculatus Hook. (74608). Rare; found in dry habitats on the hills near Darah. Fl. & Fr.: August-October.

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- **Brachiaria eruciformis** (J. E. Smith) Griseb. (74498, 83770). Common in dry habitats near Hindoli and Jhalarapatan. Plant is distinguished by its raceme and leaf-blades which are at right angle of leaf-sheaths. Fl. & Fr.: October-May.
- **B. reptans** (Linn.) Gard. & Hubb. (83655). Common on wet or marshy banks of ponds and rivers and as a weed of cultivation near Manoharthana. *Fl.* & *Fr.*: July-November.
- **B. setigera** (Retz.) Hubb. (74834). Common on the hills at low elevavation in wet and shady habitats near Darah. Fl. & Fr.: August-November.
- **Dimeria connivens** Hack. (83741). Occasional; found in grasslands and in the forests near Jhalawarh. Sometimes confused for *Dichanthium* Will. or *Bothriochloa* O. Ktze. *Fl.* & *Fr.*: August-November.
- **Dichanthium aristatum** (Poir.) Hubb. (90131). Rare; found in dry wastelands near Kotah. Fl. & Fr.: August-November.
- **Eragrostis papposa** (Duf.) Steud. (83633). Occasional; found in dry sandy or rocky grounds near Nenwa village. Branches, branchlets and glumes are tinged with purple. Fl. & Fr.: June-August.
- **Ischaemum pilosum** (Klein ex Willd.) Wight (83729). Common; found in waste, sandy or rocky grounds near Jhalawarh and Kotah-Dam. The rhizomes are extensive and the plant can be used in soil conservation. Fl. & Fr.: August-December.
- **Oropetium villosulum** Stapf ex Bor (83617). Rare; found in dry habitats, chiefly in rock crevices near Darah. Fl. & Fr.: August-October.
- **Pennisetum polystachyon** (Linn.) Schult. (74456, 83778, 90153). Native of tropics of old world. Common in dry wastelands, particularly near Manoharthana, Atru and Kotah-Dam. Fl. & Fr.: Major part of the year.
- Setaria pallide-fusca (Schumach.) Stapf (74481 74827). Occasional, abundant near ponds and ditches near Kotah-Dam, Manoharthana and Darah. Very close to S. glauca Beauv. which has, however, keeled upper lemmas. Fl. & Fr.: August-November.
- **Sorghum purpureo-sericeum** (Hochst. ex A. Rich.) Aschers. (83684). Occasional; grows in dry habitats, chiefly at the foot of hills near Eklera. *Fl.* &*Fr.*: August-October.
- Besides these, Cassia phyllodinea R. Br. (Caesalpiniaceae), a native of S. Australia, has been collected from the Central Arid Zone Research Institute, Jodhpur (Maheshwari 74176 LWG.). Glossostigha spathulatum (Hook. ex Wight) Arn. ex Benth. (83753; locality: Atru

village) and Ranunculus sceleratus Linn. (90997; locality: Kotah) growing in the present area have not been reported from any part of Rajasthan except Mount Abu. This indicates close affinity of the flora of area with Mt. Abu, the highest peak of Aravallis.

Duthie (1903-29) included the present area in his "Flora of Upper Gangetic Plain", but has not recorded the occurrence of plants from these districts. A perusal of literature on the vegetation of Gangetic Plain reveals that following 17 species have not been previously reported in the flora of Upper Gengetic Plain from this area; these species are: Ammi majus Linn., Plantago pumila Willd., Eragrostis papposa (Duf.) Steud., Sporobolus tenuissimus (Schrank.) Ktze., Oropetium villosulum Stapf, Pennisetum polystachyon (Linn.) Schult., Brachiaria eruciformis (Smith) Griseb., B. setigera (Retz.) Hubb., Sorghum purpureo-sericeum (Hochst.) Aschers., Ischaemum pilosum (Klein ex Willd.) Wight, Dichanthium aristatum Poir., Arthraxon hispidus (Thunb.) Makino, Vernonia albicans (Wall.) DC. (74614; locality: Kotah), Argyreia sericea Dalz. (74664; locality: Kotah Dam), Nicotiana alata Link & Otto (74010; locality: Bundi), Fleurya interrupta (Linn.) Gaud. (90522; locality: Kotah) and Cassia phyllodinea R. Br. which has been very recently introduced in this country.

DEPARTMENT OF BOTANY, J. V. COLLEGE, BARAUT, MEERUT, (U.P.), December 1, 1973.

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